

Practice Questions Metric Conversion

① $6.38 \times 10^2 \text{ nm} = \text{---} \text{ m}$

② $18.3 \mu\text{g} = \text{---} \text{ g}$

③ $5.6 \text{ cg} = \text{---} \text{ g}$

④ $6.89 \times 10^7 \text{ kg} = \text{---} \text{ mg}$

⑤ $100 \text{ Mg} = \text{---} \text{ kg}$

⑥ $16.27 \text{ hm} = \text{---} \text{ m}$

⑦ $22 \text{ cm} = \text{---} \text{ dm}$ 2 Step

⑧ $18.6 \text{ L} = \text{---} \mu\text{L}$

⑨ $16.1 \text{ cg} = \text{---} \text{ hg}$

⑩ $1.69 \times 10^7 \text{ mmol} = \text{---} \text{ mol}$

⑪ $22.3 \text{ mol} = \text{---} \text{ mmol}$

⑫ $16.2 \text{ mL} = \text{---} \text{ cm}^3$ * $1 \text{ mL} = 1 \text{ cm}^3$

Practice Questions Metric Conversion

- ① $6.38 \times 10^2 \text{ nm} = \text{m}$

$$\frac{6.38 \times 10^2 \text{ nm}}{10^9 \text{ nm}} = 6.38 \times 10^{-7} \text{ m}$$
- ② $18.3 \mu\text{g} = \text{g}$

$$\frac{18.3 \mu\text{g}}{10^6 \mu\text{g}} = 1.83 \times 10^{-5} \text{ g}$$
- ③ $5.6 \text{ cg} = \text{g}$

$$\frac{5.6 \text{ cg}}{10^2 \text{ cg}} = 5.6 \times 10^{-2} \text{ g}$$
- ④ $6.89 \times 10^7 \text{ kg} = \text{mg}$

$$\frac{6.89 \times 10^7 \text{ kg}}{10^3 \text{ kg}} \times \frac{10^3 \text{ mg}}{1 \text{ g}} = 6.89 \times 10^{13} \text{ mg}$$
- ⑤ $100 \text{ Mg} = \text{kg}$

$$\frac{100 \text{ Mg}}{10^6 \text{ g}} \times \frac{1 \text{ kg}}{10^3 \text{ g}} = 1.00 \times 10^5 \text{ kg}$$
- ⑥ $16.27 \text{ hm} = \text{m}$

$$\frac{16.27 \text{ hm}}{10^2 \text{ m}} = 1.627 \times 10^3 \text{ m}$$
- ⑦ $22 \text{ cm} = \text{dm}$ (2 Step)

$$\frac{22 \text{ cm}}{10^2 \text{ cm}} \times \frac{10 \text{ dm}}{1 \text{ m}} = 2.2 \text{ dm}$$
- ⑧ $18.6 \text{ L} = \mu\text{L}$

$$\frac{18.6 \text{ L}}{10^6 \text{ L}} = 1.86 \times 10^7 \mu\text{L}$$
- ⑨ $16.1 \text{ cg} = \text{hg}$

$$\frac{16.1 \text{ cg}}{10^2 \text{ cg}} \times \frac{1 \text{ hg}}{10^2 \text{ g}} = 1.61 \times 10^{-3} \text{ hg}$$
- ⑩ $1.69 \times 10^7 \text{ mmol} = \text{mol}$

$$\frac{1.69 \times 10^7 \text{ mmol}}{10^3 \text{ mmol}} = 1.69 \times 10^4 \text{ mol}$$
- ⑪ $22.3 \text{ mol} = \text{mmol}$

$$\frac{22.3 \text{ mol}}{10^3 \text{ mmol}} = 2.23 \times 10^4 \text{ mmol}$$
- ⑫ $16.2 \text{ mL} = \text{cm}^3$ $\left[\frac{1 \text{ mL}}{1 \text{ cm}^3} \right]$

$$16.2 \text{ mL} = 16.2 \text{ cm}^3$$
- ⑬ $8.6 \times 10^7 \text{ L} = \text{mL} = \text{cm}^3$